SF-SJ SECTION PHASED IMPLEMENTATION APPROACH

presented to the
San Mateo County Rail Corridor Partnership

by
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SF-SJ SECTION

- The HSR Authority appreciates the approach taken by the San Mateo County Rail Corridor Partnership to discuss rail issues with the Authority.
- The HSRA continues to work with Caltrain and the PRP to further the joint development of an integrated transportation system on the Peninsula, which will benefit both agencies and the communities the systems serve.

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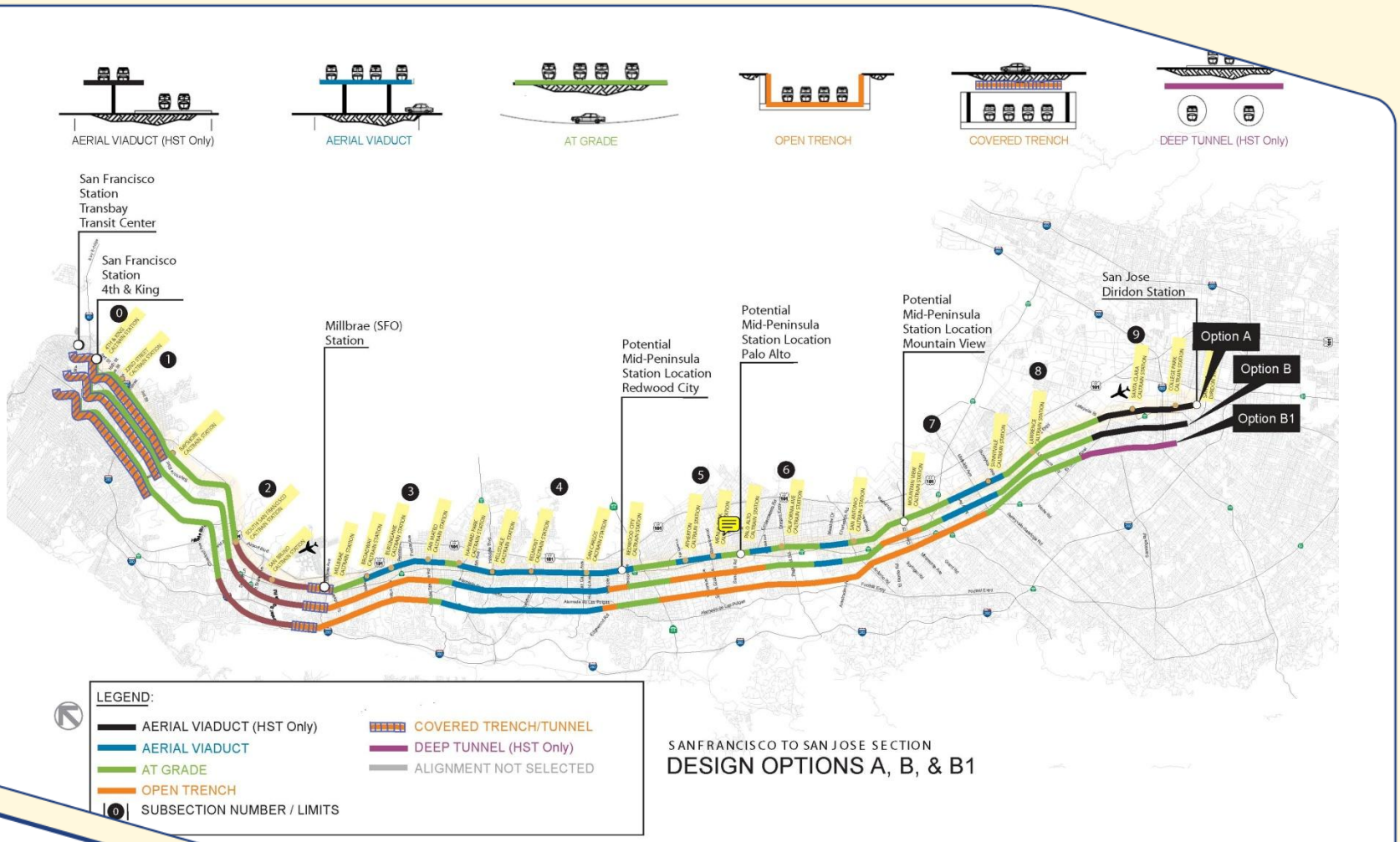
ALIGNMENT DESIGN OPTIONS – A, B, B1



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SAN MATEO COUNTY PARTNER'S LETTER
(DATED FEB 14, 2011)

Five Issues

1. Alternatives to Open Trench Alignment: Covered Trench, Intermittent Covering, Bored Tunnel.
2. Phased Implementation
3. 2-Track System
4. Land Use and Economic Impacts
5. Use of Right of Way Post Construction.

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LEGAL REQUIREMENTS

- The Authority remain consistent with the following laws:
  - ✓ Voter-approved Proposition 1A
  - ✓ California Environmental Quality Act (CEQA)
- The Authority must consider the full build-out of the system in the year 2035 (the time horizon used by all CA transportation authorities).

ALTERNATIVES ALIGNMENT DESIGNS

Partially Covered Trench Alignment Sections:

- New design option (B2) will investigate partial covered trench [800’ max sections] in city centers on the corridor. Will work with cities to determine locations.
- Designed for lightweight uses such as passenger malls or parking.
- Heavy structures over trench would require additional piling and structures by developers (to be further investigated)

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ALTERNATIVES ALIGNMENT DESIGNS

Bored Tunnel Alignment Sections:

- Bored tunnels considered primarily where no alternatives exist (costs) like mountains, to eliminate high-rise building destruction, etc.
- Taking HST exclusively into tunnel will not offer grade separation for Caltrain and freight, nor an upgrade for Caltrain infrastructure.
- Existing diesel freight trains would (a) require additional ventilation if operated in tunnels, (b) require further precautions when the freight trains transport HAZMAT materials (which is the case on the Peninsula)
- Transitions for tunnels are difficult to place as they require wider footprints for portals and long approaches (more intrusive).

PHASED IMPLEMENTATION APPROACH

San Francisco to San Jose Section

- Central Valley Selected for Receipt of ARRA funding and early construction between 2012 and 2017
- Opportunity for Refined and more Detailed Analysis and increased collaboration on SF-SJ Section

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INITIAL CONSTRUCTION

Starting in the Central Valley

The high-speed rail backbone

- Section where California's HST system will travel 220-mph maximum operating speed for long periods of time (enabling the two-hour, 40-minute requirement for trip time between LA and San Francisco)
- Initial track in the Central Valley will serve as testing and proving ground for new high-speed train technology in the United States
- Less expensive land and less complex engineering in the Valley
- Near-term job creation benefits (conservative estimate of 100,000 jobs – direct and indirect – over life of the first $5.5 billion in construction)

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FUTURE EXPANSION

Getting to Passenger Service

From

Initial Construction Section [ICS]

To

Initial Operable Section [IOS]

To

Completion of Phase 1

To

Phase 2

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PHASED IMPLEMENTATION APPROACH

Many Peninsula communities have requested:

- Evaluation of phased service implementation
- Integration of HST and Caltrain services
- Coordination of HST and Caltrain ridership and capacity projections into long-term planning
- Consideration of community specific plans and development projects

HSR is most willing to use the additional time to ensure that these issues are addressed, and to work together with Caltrain to ensure mutual benefits.

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PHASED IMPLEMENTATION APPROACH

CHSRA has announced "Phased Implementation"

- Incremental implementation of HST service along corridor
- Opportunity for greater collaboration with local and regional agencies, and the communities
- Time to select ultimate build alternative subject to the ability to accommodate phased implementation

Goal

- Provide HST "One-Seat Rides" from San Francisco in the most cost effective manner and to enhance ridership of the "Initial Operable Section"

INITIAL OPERATING PROJECT (IOP)

Peninsula IOP

- To define minimum infrastructure required to support an initial level of High-Speed Train service
- Must be feasible as part of the full build DEIR/EIS
- Assumes sharing existing Caltrain tracks/ROW
- Must maintain Caltrain services during phased implementation
- Must consider the freight rail requirements on the Peninsula
- Would require Caltrain electrification, PTC, new generation rolling stock (matching dimensions/platforms)
- Does not necessarily lead to grade separation advantages

2 TRACKS OR MORE?

Line Capacity (HSR and Caltrain)
- Relative Operating Speeds
- Stopping Patterns
- Limited Passing Tracks

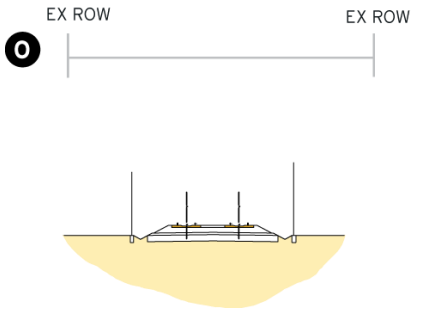
Overlapping Peak Hours

Infrastructure/Rolling Stock
- Platform Heights
- Potential wider body HSR vs Narrow Caltrain Vehicles

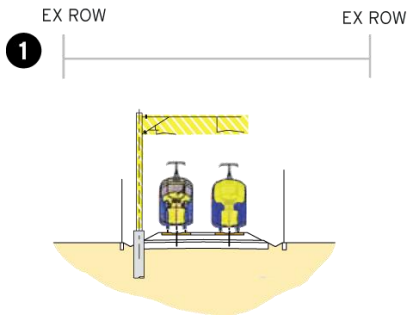
Crossings Impact Service
- Rail line speed (FRA Guidelines: 80-110mph – Install additional automated devices; 111-125mph – Fail-safe vehicle detection devices and full barriers)
- Roadway traffic congestion
- Reliability

CONSTRUCTION STAGING EXAMPLE: TRENCH

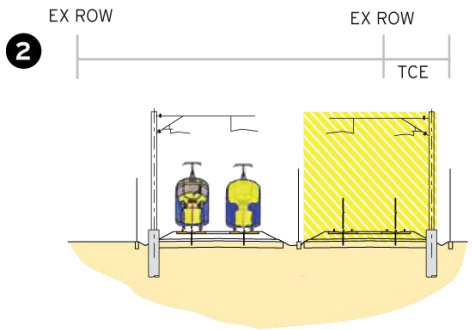
Caltrain today



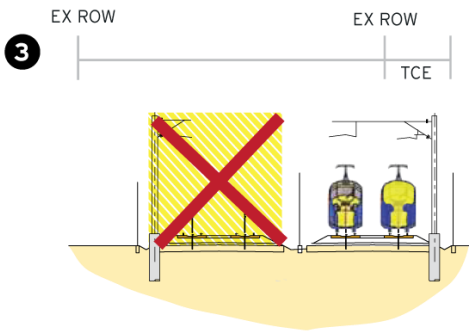
Electrified

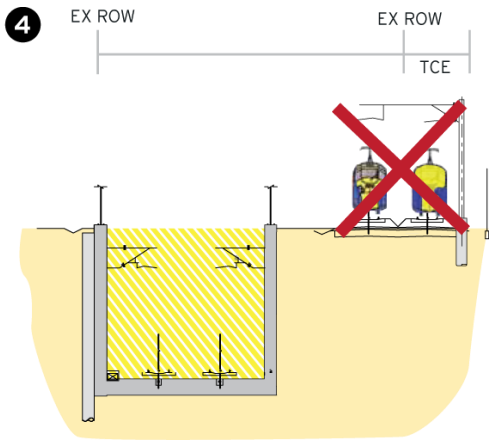


Electrified Shoofly

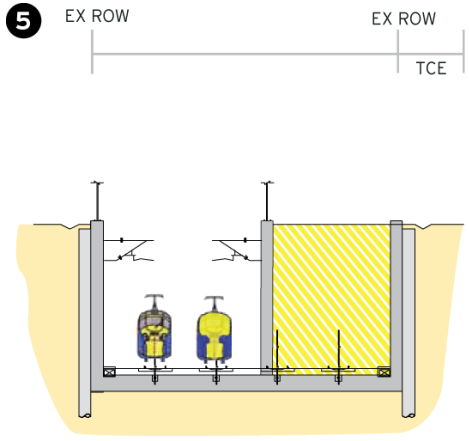


Remove tracks

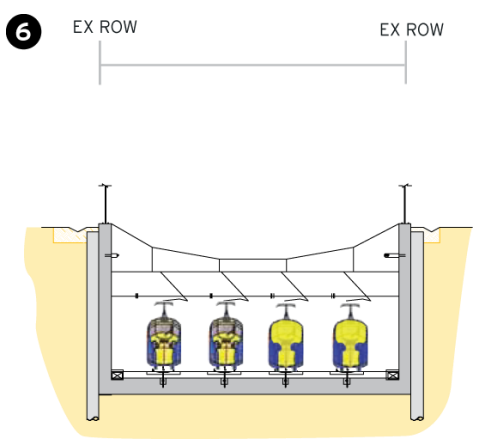




First Trench



Transfer & 2nd Trench



Final Configuration

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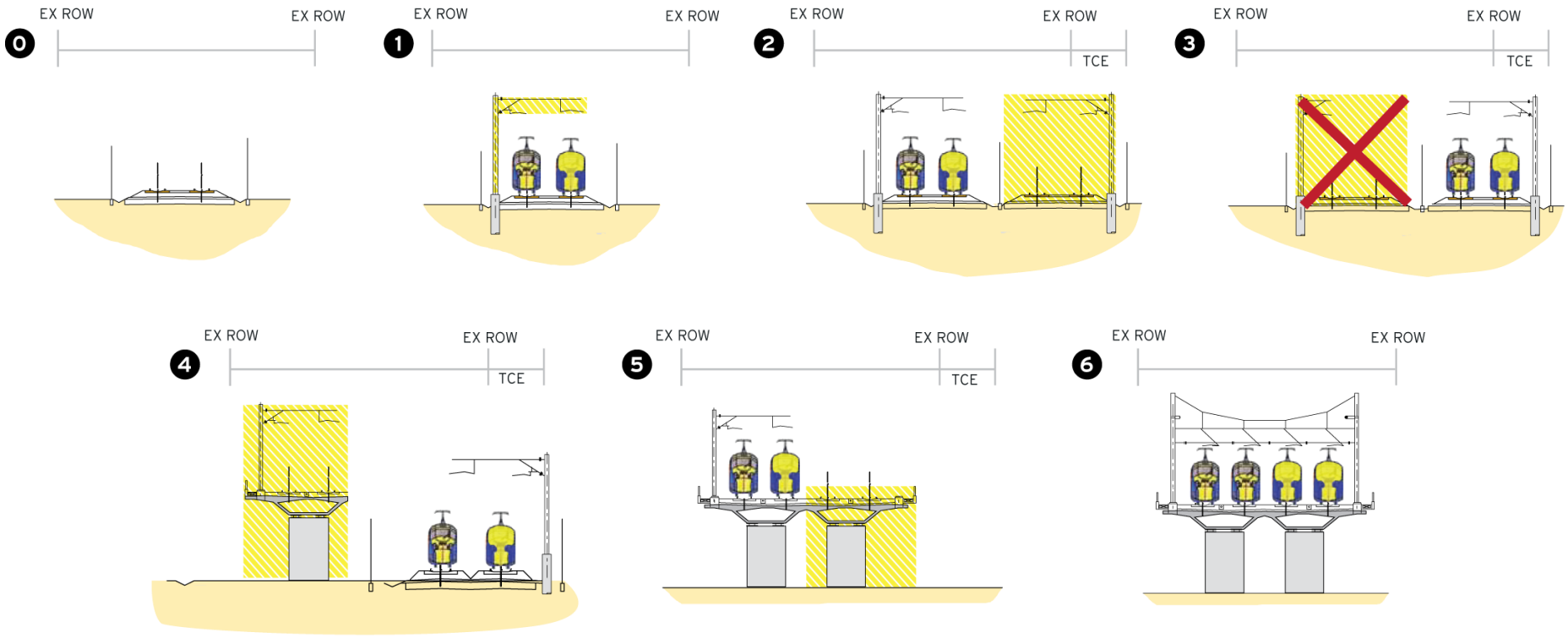
CONSTRUCTION STAGING EXAMPLE: AERIAL (1 BRIDGE)



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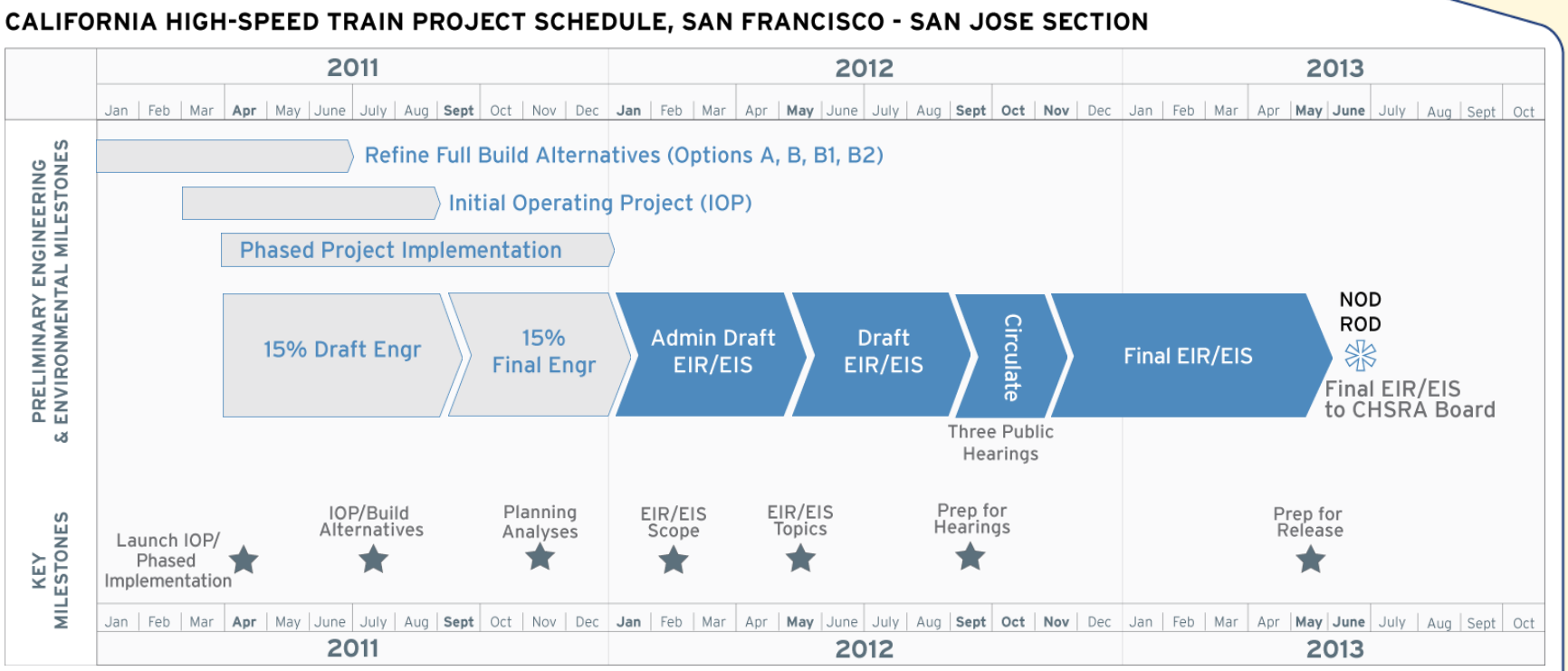
SF-SJ DEIR/EIS TIMELINE



- Publication of SF-SJ Section Draft EIR/EIS extended to late summer/early fall of 2012.

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RAIL CORRIDOR PARTNERSHIP ISSUES #3-5

- **Two-Track Alternative:** This has been covered in the "Phased Implementation" discussion.
- **Land Use and Economic Impacts:** Adopted land-use plans on rail corridor (Millbrae Station Area Plan, San Mateo Downtown Plan etc.) will be considered in EIR/EIS. Close relationship between Authority, Caltrain and cities encouraged to ensure best results. Economic issue needs further discussions between HSRA and Caltrain.
- **Use of Rail Right of Way Post Construction:** HSR would like to ensure maximum benefits to local Authorities to benefit from aerial rights as well as areas under aerial structures. The Authority and Caltrain will need to discuss what is possible (ROW belongs to Caltrain). The FRA is also looking at the issue.

RAIL CORRIDOR PARTNERSHIP ISSUES

Q & A

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LOOKING AHEAD

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